

AMENDMENTS TO CLAIMS

1. (currently amended) An inverse emulsion comprising consisting essentially of the product of admixing an aqueous phase and an oil phase, wherein:

(A) the weight ratio between the aqueous phase and the oil phase (aqueous phase : oil phase) is from 4:1 to 2:1,

(B) the inverse emulsion includes a crosslinker comprising a compound containing two or more ethylenic groups, and

(C) the inverse emulsion contains from 20 to 70 percent by weight of an anionic acrylic polymer, the anionic acrylic polymer being obtained by inverse emulsion polymerization of:

(i) one or more anionic acrylic monomers dissolved in the aqueous phase, and

(ii) at least one hydrophobic acrylic monomer dissolved in the oil phase, and

wherein

(a) at least one of the one or more anionic acrylic monomers contains a strongly acidic functional group, and

(b) the concentration of the at least one hydrophobic acrylic monomer is from 0.1 to 5 weight percent of the total weight of the one or more anionic acrylic monomers.

2. (previously presented) The inverse emulsion according to claim 1 wherein the hydrophobic acrylic monomers is from 0.5 to 1.5 percent by weight of the anionic acrylic monomer.

3. (previously presented) The inverse emulsion according to claim 1 wherein the anionic acrylic monomer is 2-acrylamido-2-methylpropanesulfonic acid and/or its sodium salt.

4. (previously presented) The inverse emulsion according to claim 3 wherein the hydrophobic acrylic monomer is an ester of acrylic or methacrylic acid with C₄-C₂₀ linear or branched monofunctional alcohols.
5. (previously presented) The inverse emulsion according to claim 4 wherein the hydrophobic acrylic monomer is stearyl methacrylate or n-butyl methacrylate.
- 6 (previously presented) The inverse emulsion according to claim 2 wherein the anionic acrylic monomer is 2-acrylamido-2-methylpropanesulfonic acid and/or its sodium salt.
7. (previously presented) The inverse emulsion according to claim 6 wherein the hydrophobic acrylic monomer is an ester of acrylic or methacrylic acid with C₄-C₂₀ linear or branched monofunctional alcohols.
8. (previously presented) The inverse emulsion according to claim 7 wherein the hydrophobic acrylic monomer is stearyl methacrylate or n-butyl methacrylate.
9. (Withdrawn) A procedure for the preparation of an inverse emulsion comprising:
 - a. adding to a mixture of water and one or more anionic acrylic monomers:
an aqueous solution of an alkali to regulate pH between 4 and 10;,
a cross-linking agent; and
an initiator of radical polymerization to form a first admixture,
while maintaining the temperature of the first admixture between 0° and 5°C;
 - b. preparing an oil phase containing from 0.1 to 10 percent by weight of at least one hydrophobic acrylic monomer and one or more water-in-oil emulsifiers;
 - c. introducing the first admixture into the oil phase and emulsifying the two phases by vigorous stirring;

d. initiating polymerization and completing the polymerization while maintaining a temperature between 55° and 95°C and a vigorous stirring to prepare a second admixture; and

e. cooling the second mixture to 35-45°C and adding thereto an oil-in-water emulsifier;

wherein the one or more anionic acrylic monomers, comprises a strongly acidic functional group; and steps a and b may be performed in any order.

10. (Withdrawn) The procedure for the preparation of an inverse emulsion according to claim 9 wherein the anionic acrylic monomer containing a strongly acidic functional group is 2-acrylamido-2-methylpropanesulfonic acid and/or its sodium salt.

11. (Withdrawn) The procedure for the preparation of an inverse emulsion according to claim 10 wherein the hydrophobic acrylic monomers are esters of acrylic or methacrylic acid with C₄-C₂₀ linear or branched monofunctional alcohols.

12. (Withdrawn) The procedure for the preparation of an inverse emulsion according to claim 11 wherein the hydrophobic acrylic monomers are stearyl methacrylate or n-butyl acrylate.

13. (Withdrawn) The procedure for the preparation of an inverse emulsion according to claim 12 wherein the anionic acrylic monomers are a mixture of at least one monomer containing a strongly acidic functional group (AF) and one or more monomers containing a carboxylic group (AC), and wherein the weight ratio between AF and AC (AF:AC) is from 4:1 to 1:1.

14. (Withdrawn) The procedure for the preparation of an inverse emulsion according to claim 13 wherein the anionic acrylic monomers containing a carboxylic group are selected from the group consisting of acrylic acid and methacrylic acid.

15. (Withdrawn) The procedure for the preparation of an inverse emulsion according to claim 9 wherein the anionic acrylic polymer obtained by inverse emulsion polymerization is cross-linked with from 0.01 percent to 1 percent by weight, of the total weight of the monomers, of a compound containing two or more ethylenic groups.

16. (Withdrawn) The procedure for the preparation of an inverse emulsion according to claim 15 wherein the compound containing two or more ethylenic groups is methylene-bis-acrylamide.

17. (New) The inverse emulsion of Claim 1 wherein the crosslinker is present at a concentration of 0.01% to 1 % by weight on the total weight of the monomers

18. (New) The inverse emulsion of Claim 17 wherein crosslinker is methylene-bis-acrylamide.